83-#912 - 11819
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ASSESSMENT REPORT

GEOLOGICAL AND GEOCHEMICAL SURVEY

ROD GROUP

ATLIN MINING DIVISION

TATSAMENIE LAKE AREA, B. C.

N.T.S. 104K/TULSEQUAH MAP SHEET

58°22'N
132°31'W

OWNER: CHEVRON CANADA LIMITED

OPERATOR: CHEVRON CANADA RESOURCES LIMITED

AUTHOR: GODFREY WALTON

November 1983

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INTRODUCTION

A total of 7 man days were spent geologically mapping, prospecting and soil sampling on the ROD claims. Work commenced on July 24th and was completed by September 9, 1983.

LOCATION AND ACCESS

The ROD claim group is situated at 58°22'N and 132°31'W directly north of Tatsatua Creek (Fig. 1). The claim group is approximately 150 kilometers southeast of Atlin, B. C.

A Hughes 500D helicopter provided access to the property from a base camp located at Trapper Lake, 10 kilometers to the north, and at Bearskin Lake, 20 kilometers to the south.

CLAIM STATUS

The ROD group consists of the ROD 1 and 2 claims. They were staked during the 1983 field season. The pertinent data for the claims are listed below:

Claim	Record No.	Record Date	No. of Units
ROD 1	1956	July 4,1983	20
ROD 2	1957	July 4,1983	20

The majority of the ground covered by the ROD claims was previously unstaked. An old LCP from the MET claims was located in the southeastern corner of the ROD claims. This old MET claim adjoins other claims covering the carbonatized areas just north of Tatsamenie Lake. The MET claims have been allowed to lapse.

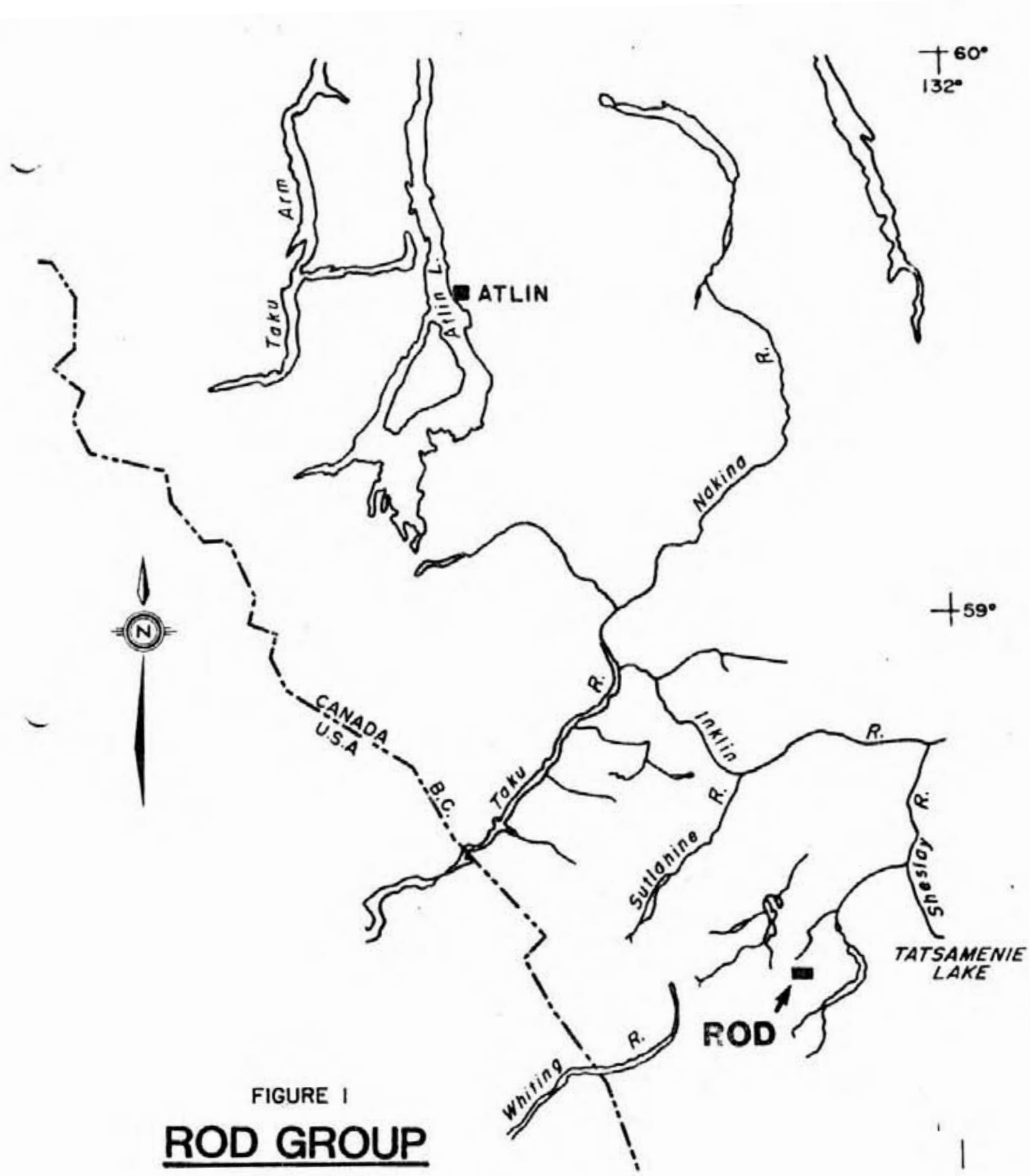

FIGURE 1

ROD GROUP

LOCATION MAP

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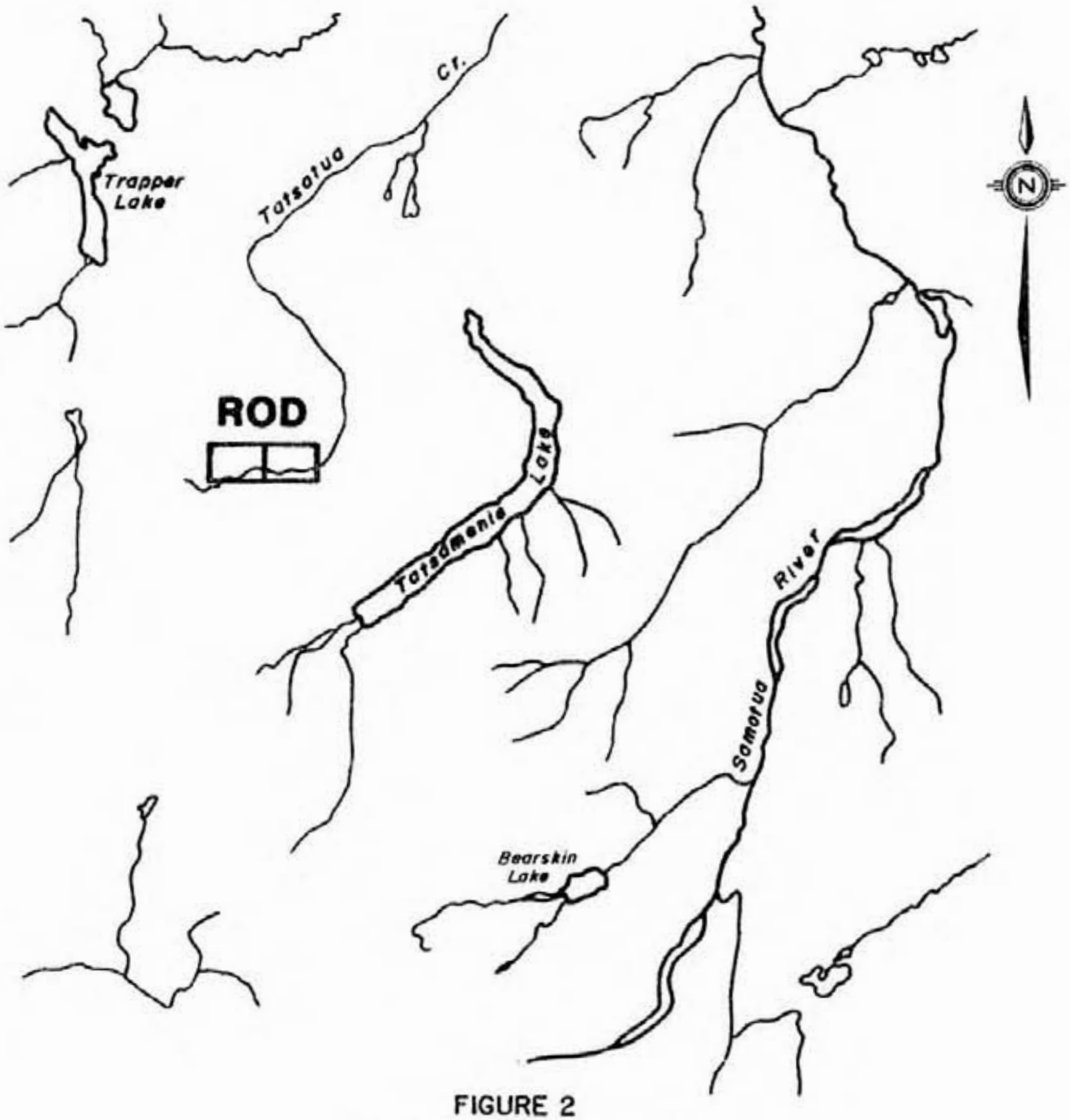


FIGURE 2

ROD GROUP

DETAILED LOCATION MAP

0 10 Km

M504

GEOLOGY

Regional Geology

The Tulsequah map sheet (N.T.S 104K) was mapped by Souther (1971). His work was used as an initial base for mapping on the ROD claims. The ROD claims are on the eastern margin of the coast range batholith and on the northwestern margin of a triangular section of Stikine terrane (Souther 1971). To the north of the claim block, Souther has mapped Stuhuni group volcanic rocks while to the south he has mapped Sloko group volcanics. Our more detailed mapping suggests a slightly different picture on the actual claim group.

Claim Geology (Fig. 3)

The claims are underlain by three major geological units which are Stikine assemblage, Sloko group and a Jurassic diorite. These units are discussed in detail below:

Stikine Terrane (Unit 1)

Unit 1 is comprised of three sub-units that can be easily mapped, a siltstone (unit 1a), a phyllite (unit 1b) and a breccia/conglomerate (unit 1c).

The siltstone sub-unit is well bedded and consists of siltstone, mudstone and sandstone. The rock is slightly siliceous but only locally. Beds vary in thickness from 10 centimeters to 30 centimeters. Minor sulphides (up to 6%) are present in some of the siltstone beds. The siltstone, because of its bedded nature, is the only sub-unit which outlines the structural complexity in the area.

The area has been structurally disrupted as can be seen by the disrupted siltstone beds. The unit acts as a very good marker horizon. No folding has been recognized in the outcrops.

The phyllite sub-unit is a pale green micaceous rock. Again, it is locally siliceous with some minor quartz veining. The unit is otherwise not altered. No bedding is visible although a good foliation is present. The original rock unit is not discernible although it probably had a volcanic component because of the greenish colour.

The breccia/conglomerate sub-unit is primarily located at the north east corner of ROD 2. This is a very massive unit and is only included in the Pre-Triassic Stikine Terrane because it is interbedded with the siltstone sub-unit. It appears to be similar to the Takwahoni or King Salmon Formation in many characteristics. It is typically dark green in colour with large rounded and angular fragments? boulders. No bedding is visible in the main unit.

The relative stratigraphy within this claim group is not clear and has not been unravelled on this claim block.

Diorite (Unit 2)

The diorite is termed by Souther (1971) to be Jurassic and/or Cretaceous in age. It is typically medium to coarse grained, equigranular, massive to locally weakly foliated. Weak biotite hornfels has occurred around the intrusion.

Sloko Group (Unit 3)

The Sloko is primarily a felsic volcanic suite varying in composition from rhyolite to dacite. However, there are some basic volcanics, which appear to be fresh. There are numerous rhyolite dykes which are characteristically white to cream in colour with small quartz eyes. They dissect all of the units. None of the Sloko rocks have been silicified although some tetrahedrite mineralization has cut the volcanic rocks.

ALTERATION AND MINERALIZATION

The rocks are mainly fresh. There is some local silicification in some of the Stikine Terrane siltstones and some minor hornfels around the diorites. Some of the silicification within the Pre-Upper Triassic siltstones may be a result of contact metamorphism from the diorite.

The mineralization of the claims is in the form of two types; one in quartz veins, the other is massive arsenopyrite (tetrahedrite?) veins. There are two quartz veins or intense zones of silicification. One is definitely along a fault zone near the siltstone; however, no economic gold values were obtained. The other intense silicification is in some Sloko basalt on the northwestern side of the claims. Here the zone did produce some economic values of gold (up to 3000 ppb Au). However, the values are over a maximum width of 1.5 meters. There is no enrichment in the hanging or footwall of the system. The zone is only traceable for 50 meters.

The second type of mineralization is in the form of massive arsenopyrite (tetrahedrite?) veins which have had grab sample assays up to 0.3 oz/ton. These veins are typically orientated north-south and cannot be traced more than 50 meters. The vein cuts Sloko volcanics which suggests the mineralization may be Tertiary or younger. Some of these vein samples have good copper staining (azurite and malachite) which suggests tetrahedrite may be present. Although more than one vein was located, at present the density does not appear to be high enough to have formed an economic deposit.

GEOCHEMICAL SURVEY (Figures 4 - 8)

115 soil samples and 28 rock samples were taken on the ROD claims. The soil samples were primarily talus fines and were collected within 10 centimeters of the surface. Any true soil samples were taken from the B-horizon. The soil type samples were taken on three contour lines running approximately east west.

Rock samples were placed in heavy duty plastic rock sample bags. Soil and talus fine samples were placed in kraft wet-strength soil bags and dried. Rock and soil samples were then sent to Chemex Labs Limited of North Vancouver.

Soil samples were further dried and then sieved, with the -80 mesh fraction retained for analysis. Rock samples were crushed, dried and pulverized to -100 mesh. For Au determination, a fire assay - atomic absorption technique is used with the fire assay bead being dissolved in HCl and HNO_3 then analyzed by conventional atomic absorption techniques. For Ag, a mixture of $HClO_4$ and HNO_3 is used to digest the sample, which is followed by atomic

absorption spectrophotometry. For arsenic a 1.0 gram sample is digested with a mixture of perchloric and nitric acid to strong fumes of perchloric acid. The digested solution is diluted to volume and mixed. An aliquot of the digest is acidified, reduced with KI and mixed. A portion of the reduced solution is converted to arsine with $NaBH_4$ and the arsenic content determined using flameless atomic absorption. For Sb a 2.0 gm sample is digested with conc. HCl in hot water bath. The iron is reduced to Fe^{+2} state and the Sb complexed with I^-. The complex is extracted with TOPO-MIBK and analyzed via A.A.

The geochemical results are quite encouraging. There is a good Au, As, Sb and Ag geochemical anomaly near the common line between the two claims. This anomaly is of 4 samples on two lines with sample spacing approximately 100 meters.

Elsewhere on the claims there are good Sb, As and Au values that occur only on one line and occasionally overlap. These anomalous values, up to 400 ppm Sb, >10000 ppm As and 400 ppb Au, suggest these areas on the claims warrant some follow-up. The work to date has not really defined these anomalies. Most of the rock samples that were taken did not reflect the geochemical results.

One area in the north west section of the claims was chip sampled because some initial grab rock samples were taken and had results above 1000 ppb Au. The chip samples were assayed but no further encouragement was obtained. This zone was discussed in the Alteration and Mineralization section of this report.

CONCLUSION AND RECOMMENDATIONS

Geological mapping and initial soil, talus fines and rock sampling indicate that some areas warrant some follow-up. The geochemical anomalies have not been completely explained although they may be associated with small veins but more careful geological mapping combined with detailed soil or talus fine sampling is required.

REFERENCE

Souther, J.G. (1971). Geology and mineral deposits of Tulsequah map-area, British Columbia. Geological Survey of Canada Memoir 362, 84 p.

ROD GROUP

STATEMENT OF COST

PERIOD: July 24 to September 9, 1983

LABOUR:

	Position	Field Days	Office Days
G. Walton	Geologist	4	2
D. Hodge	Sampler	3	
F. Wohlgemuth	Sampler	1	
M. Thicke	Geologist	1	
		9	2

Average field cost $100/man day	$ 900.00
Average office day cost $150/man day	300.00

CAMP COSTS:

9 man days x $60/man day	540.00

HELICOPTER TIME:

$500 (including fuel) x 2.5 hours	1,250.00

SAMPLE COST:

115 soil samples @$16.15	=	1,857.25
28 rock samples @$17.65	=	494.20

DRAFTING COST:

Average cost $100/man day x 3 man days	300.00
TOTAL	$5,641.45

STATEMENT OF QUALIFICATIONS

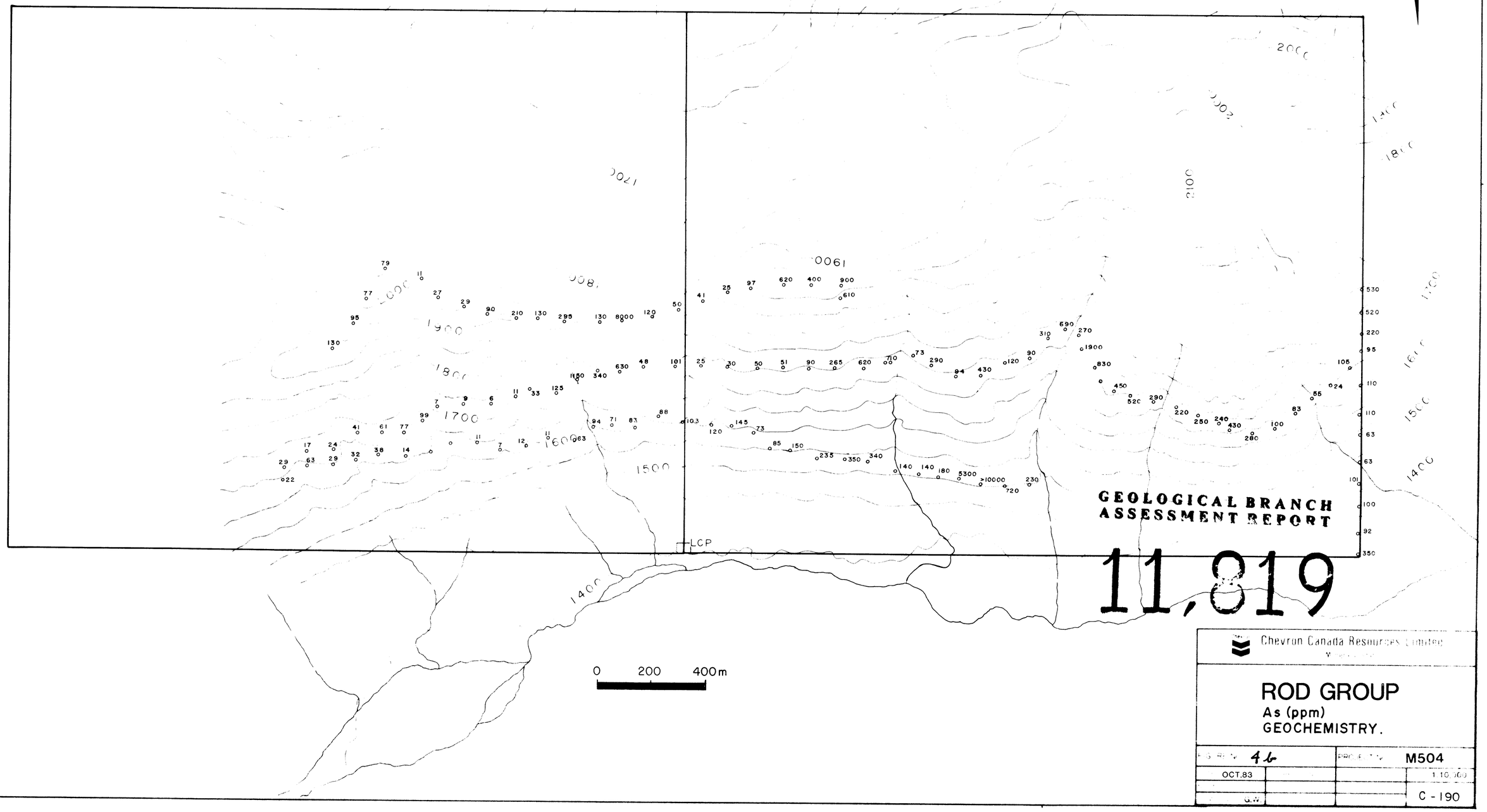
I, Godfrey Walton, have worked as a geologist in British Columbia, Yukon, Northwest Territories, Alberta and Ontario since 1973. A B.Sc. (Hons. Geology) was received in 1974 from the University of Alberta and followed by a M.Sc. degree in geology from Queen's University in 1978. I am currently employed as a geologist with Chevron Canada Resources Limited of Vancouver, B. C.

I am a member of the Canadian Institute of Mining and Metallurgy, Exploration Geochemists and Mineralogical Association of Canada.

The work on the ROD Group was carried out by me

Godfrey Walton

GODFREY WALTON



Chevron Canada Resources Limited

ROD GROUP
As (ppm)
GEOCHEMISTRY.

46		PROJECT M504	
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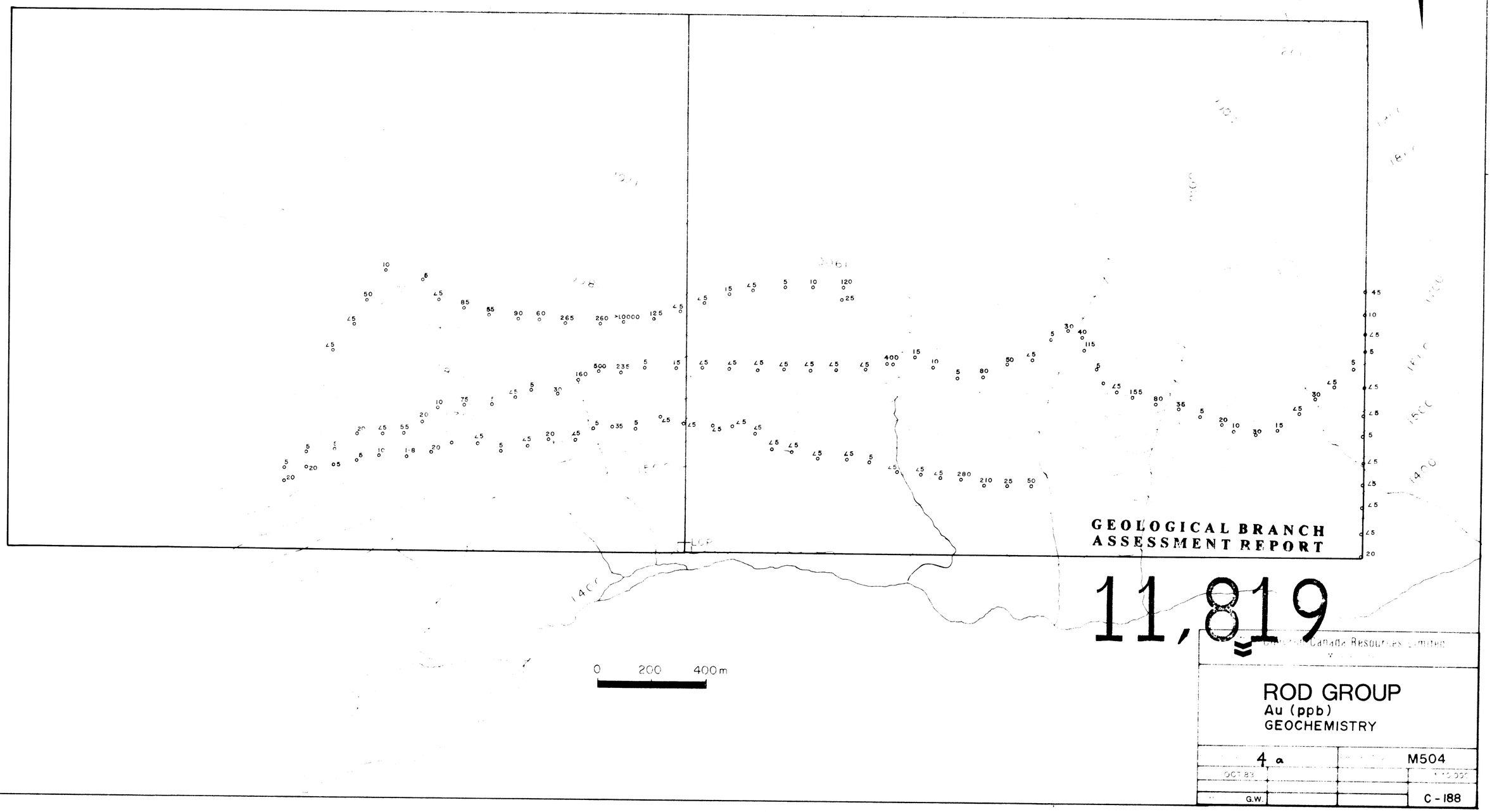
G.W.			C - 190



GEOLOGICAL BRANCH
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Cominco Canada Resources Limited

ROD GROUP
Au (ppb)
GEOCHEMISTRY

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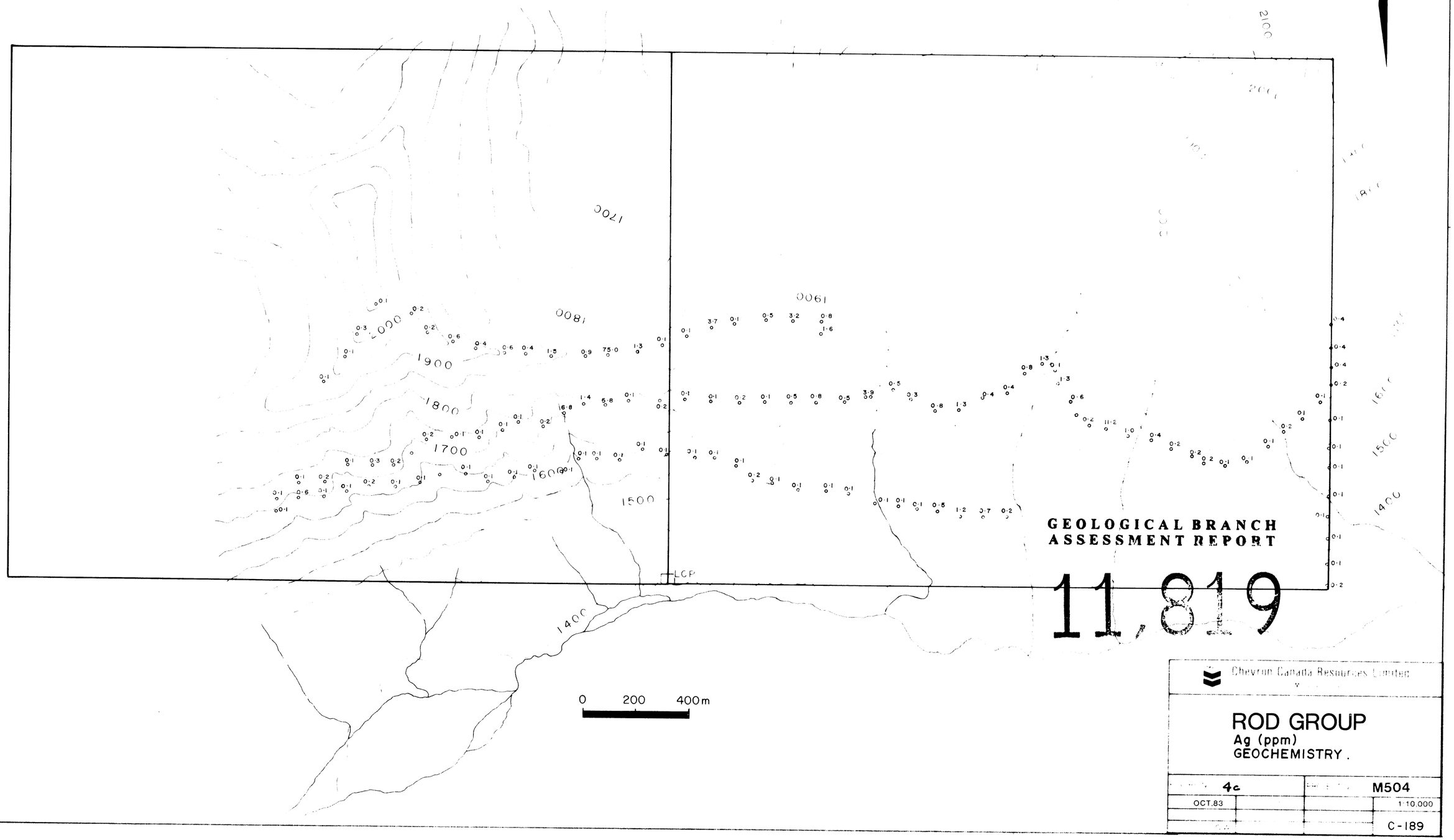
G.W.			C - 188



GEOLOGICAL BRANCH
ASSESSMENT REPORT

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Chevron Canada Resources Limited

ROD GROUP
Ag (ppm)
GEOCHEMISTRY.

4c			M504
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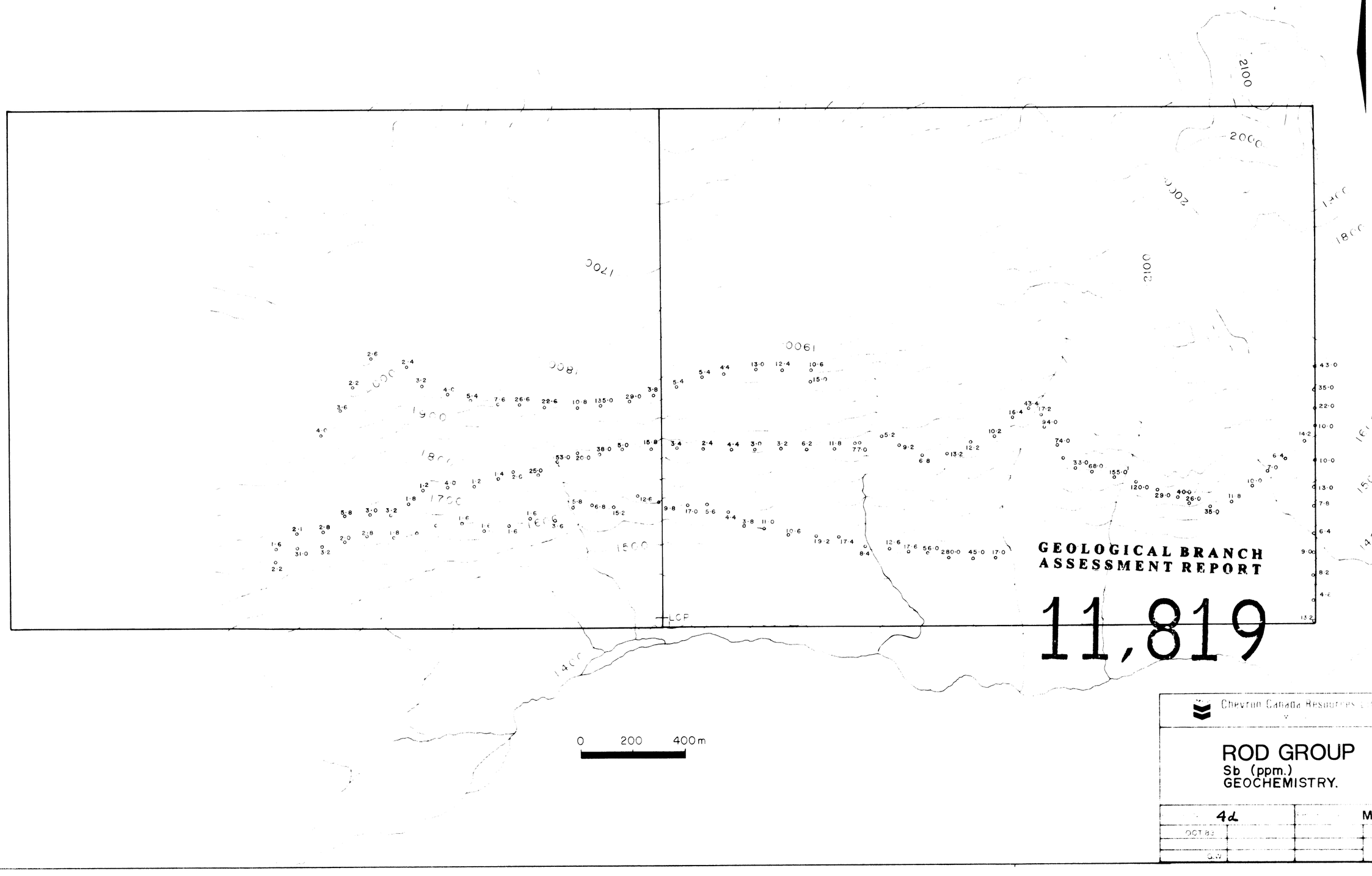
			C-189



GEOLOGICAL BRANCH
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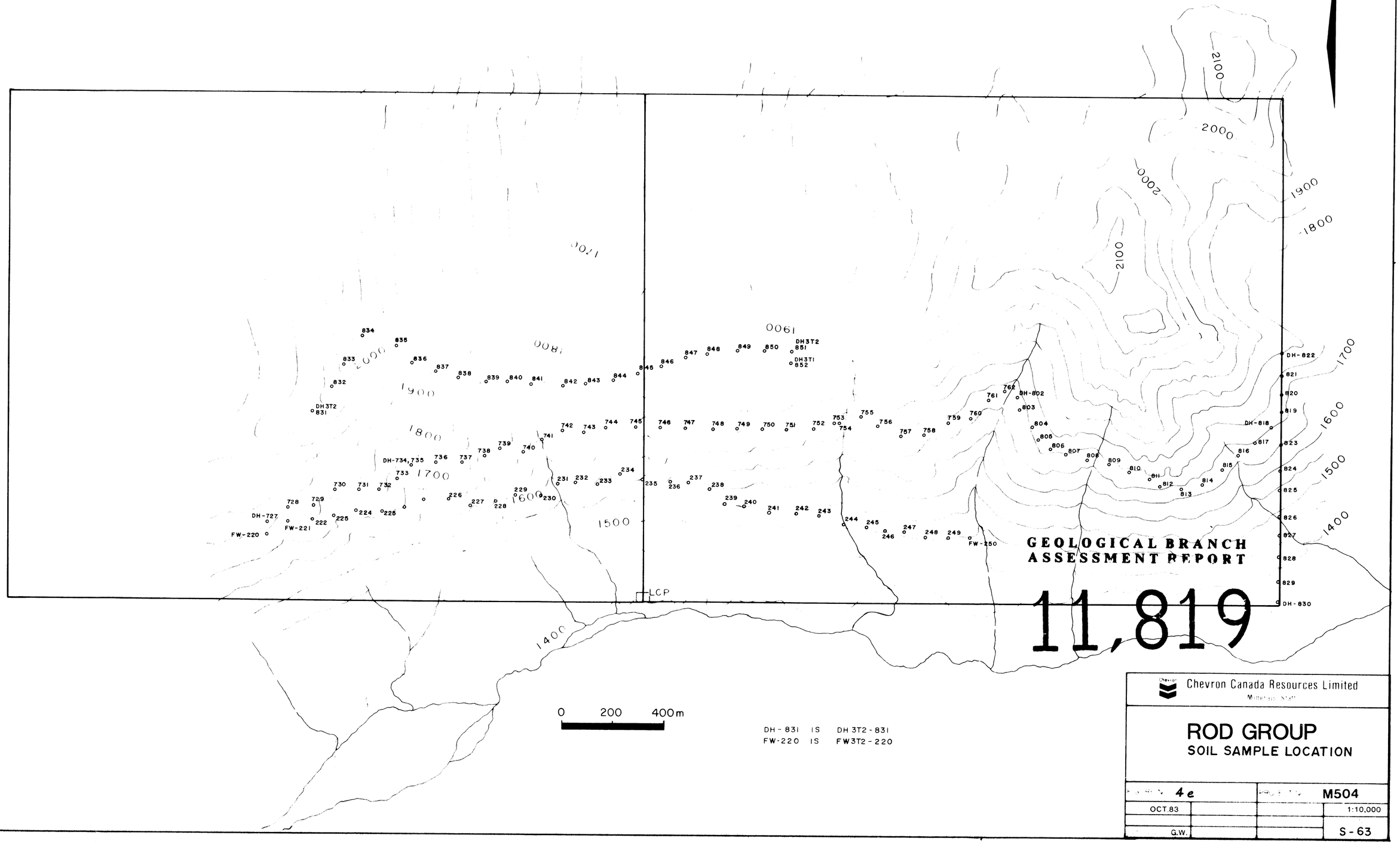
ROD GROUP
Sb (ppm.)
GEOCHEMISTRY.

4d		M504
OCT 82		1:10,000
D.W.		C-191



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ROD GROUP
SOIL SAMPLE LOCATION

Figure No. 4e		Project No. M504	
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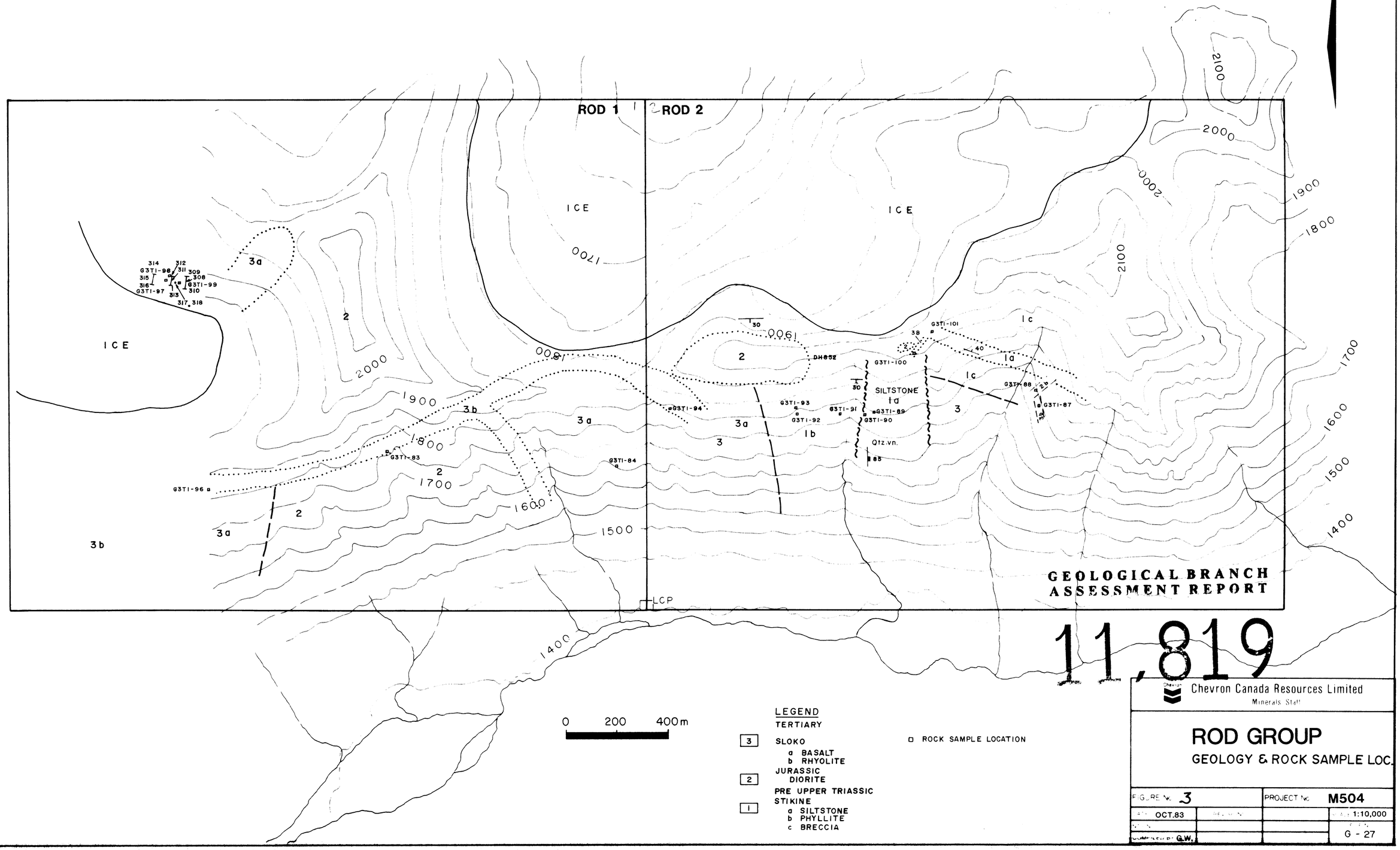

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ASSESSMENT REPORT

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Minerals Staff

ROD GROUP
GEOLOGY & ROCK SAMPLE LOC.

FIGURE No. 3		PROJECT No. M504	
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